#### DOCUMENT RESUME

ED 137 584 CE 010 626

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TITLE Employment Outlook for 1976 College Graduates in New

England. Regional Report Number 76-4.

INSTITUTION Bureau of Labor Statistics (DOL), Boston, Hass. New

England Regional Office.

PUB DATE 76
NOTE 23p.

EDRS PRICE HF-\$0.83 HC-\$1.67 Plus Postage.

DESCRIPTORS Accounting; Affirmative Action; Business

Administration; \*College Graduates; \*Employment
Opportunities; Employment Potential; \*Employment
Projections; Employment Trends; Engineering; Health
Occupations; Job Market; Job Placement; \*Labor
Supply; Liberal Arts; \*Manpower Needs; Occupational

Guidance; Personnel Selection; Sciences;

Socioeconomic Influences; \*Student Recruitment;

Teaching; Technology

IDENTIFIERS \*New England

#### ABSTRACT

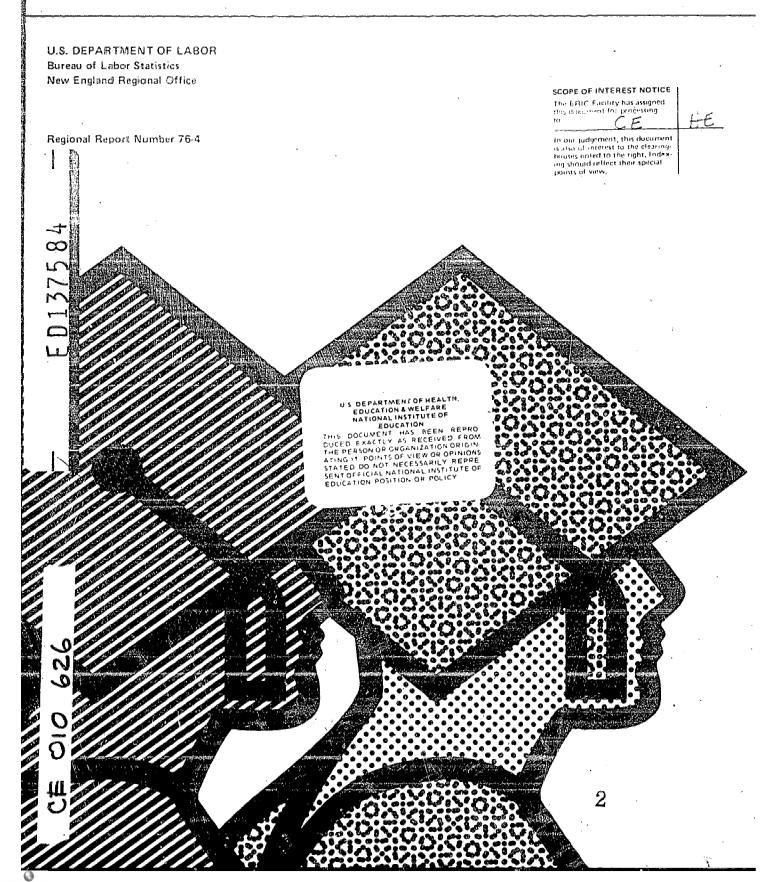
Primary information furnished by college placement directors in New England revealed that recruiting for the 1976 New England college graduates started slowly in the fall of 1975 but picked up in the early months of 1976. Most placement officials reported slight increases in the number of recruiters visiting college campuses. Chemical engineers continued to be actively sought but civil engineers' prospects were hurt by weakness in the construction industry. Accounting majors were receiving attractive offers but supply may be outrunning the demand for them. The health field had many openings although registered nurses, for example, might not have been selected for their first choice of a position. In the middle as far as job opportunities were concerned were the graduates in the business area. Graduates with majors in scientific fields and those with computer science courses should have been able to find suitable positions. Those with majors in education, humanities, and social sciences, on the other hand, found it more difficult to find jobs for which they had been trained. This report also discusses government spending in relation to college graduates, recruiting to meet affirmative action goals, relocation, and the value of a college education. (TA).

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# EMPLOYMENT OUTLOOK FOR 1976 COLLEGE GRADUATES IN NEW ENGLAND





# employment outlook for 1976 College Graduates in New England

U.S. DEPARTMENT OF LABOR W. J. Usery, Jr., Secretary

Bureau of Labor Statistics Julius Shiskin, Commissioner

New England Regional Office Wendell D. Macdonald, Regional Commissioner

1976

Regional Report 76-4





#### FOREWORD

Primary information for this report was furnished by directors of placement in a representative sample of New England schools of higher education. The survey was made and this bulletin written by Gordon E. Bowen of the Bureau of Labor Statistics, Boston Regional Office.

Wendell D. Macdonald Regional Commissioner



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# EMPLOYMENT OUTLOOK FOR 1976 COLLEGE GRADUATES IN NEW ENGLAND

## I. SUMMARY

Recruiting for the 1976 class of New England college graduates started slowly last fall but picked up in the early months of 1976. It now appears that this will be a fairly good year after all. Most placement officials reported slight increases in the number of recruiters visiting college campuses but the optimism stems from the fact that they are now interviewing for many more openings. One reason for earlier pessimism mentioned by most officials was the slowness of companies to make firm offers to those interviewed some weeks earlier. Once the evidence of an economic upturn became firmer, however, the offers began arriving and as top ranked students accepted offers, those lower down the ladder are now anxiously awaiting theirs.

Another encouraging sign is the significant number of corporations who have suddenly asked for campus recruiting dates or who are returning for a second round of interviews. While mest placement directors were plagued with cancellations last year, there are many now who have the pleasanter task of notifying students of additional visits by recruiters after the close of the regular recruiting period.

Although recruiters have more slots to fill this year, there is an

ever-growing number of students majoring in career-oriented fields and competing for these openings upon graduation. Despite an increase in the number of engineering graduates there should be enough openings to enable most to find a job in their specialty. Chemical engineers continue to be actively sought but civil engineers' prospects are hurt by weakness in the construction industry. Accounting majors, where some schools report a doubling in the size of graduating classes over the last few years, are receiving attractive offers but supply may be outrunning the demand for them. The health field has many openings although registered nurses, for example, may not be selected for their first choice of a position.

Somewhere in the middle as far as job opportunities are concerned are the graduates in the business area. Recruiters are out looking for the better qualifie graduates whom they seek for corporation training programs. Graduates with majors in scientific fields and those with computer science courses should also find suitable positions. Those with majors in education, humanities and social sciences, on the other hand, will find it more difficult to find the jobs for which they have been trained. Even a graduate degree evidently does little to enhance their employability this year.

The delayed response to the improving economy by firms seeking this years' college graduates has underscored the need for job hunting initiative on the part of the seniors. Furthermore, placement directors point out that there are many jobs available in smaller companies that can not afford campus recruiting. The present situation, therefore, should

encourage a student with any major who does not yet have a job offer to seek out these firms by sending letters and resumes and by making all possible contacts. This process often proves a fruitful approach in finding a job which offers a career opportunity.

#### II. ACTIVE RECRUITMENT OF ENGINEERING GRADUATES

Although the specific field of study has an important bearing on the attractiveness of their job offers, most engineering graduates should find employment by commencement. Demand for chemical engineers continues strong, not only by the chemical and petroleum firms, but by many others including food processors. Some mention was made of a slowdown in recruiting by the petroleum firms due to uncertainty over future gove.rnment regulation and the threat of legislation to break up these companies. Several placement directors commented on the growing number of engineering graduates despite the consensus opinion that the curriculum is difficult. The comment of one campus recruiter is that the growing number of chemical engineers has already reduced the average quality since marginal students struggle through the program merely because the prospect of lucrative job offers upon graduation. The supply may exceed the demand for chemical engineers sometime in the future but there will be openings each year as long as the chemical and petroleum industries remain important segments of our economy. At one engineering school, however, only two of the 36 chemical engineering graduates not going to graduate school had received job offers by early spring.

Most large corporations are interviewing the mechanical and electrical

engineers in approximately the same numbers as last year so the chances are that most will eventually find suitable jobs. Deep sea drilling for oil has created an interest in ocean engineering but firms often overlook this specialty and recruit the more numerous mechanical engineers who receive similar training and education.

Those receiving degrees in other engineering specialties, where graduates are not so numerous, are in good shape. Industrial engineers can be expected to receive job offers related to their training. One sign of the times is how aeronautical engineering, once the "glamor" field due to the space program, has faded in importance while interest in nuclear engineering is showing growth.

The most disappointed engineering graduates in 1976 may well be those receiving degrees in civil engineering. The market for this discipline was poor last year and will remain that way until there is a revival of the construction industry. Construction in New England is particularly slack and relocation to another area may be the only answer for civil engineering graduates who desire to work in that specialty. Although state governments do hire some civil engineers, as does the petroleum industry, a major problem for placement directors is that recruiters do not arrive on campus looking for a half dozen civil engineers as is the case with other engineering specialties. For this reason a civil engineering graduate may have to seek out their own jobs not only this year but for some time into the future. Civil engineers, and others as well, may often be sought for jobs not directly related to engineering since the methodical solving of problems is an asset in many occupations.



Offering salaries of graduating chemical engineers falls in the \$13,500 to \$14,200 per year range with top graduates receiving up to \$14,500. The mechanical and electrical engineers are being offered annual salaries in the range of \$13,500 to \$14,000. A masters degree will usually add \$1,000 to \$1,500 to these offers. Exceptional graduates with some work experience in engineering may receive offers as high as \$16,000 with a bachelors degree but offers this hill are rare.

# III. HOPEFUL SIGNS FOR ACCOUNTING GRADUATES

but there should be enough openings to provide most with jobs in the accounting field. Placement officials report a growing number of students majoring in accounting and this may portend growing placement problems infuture years. In the case of several colleges the number of accounting graduates has doubled over the past few years as the favorable job market in this occupation became apparent. Furthermore, as one college placement director noted, "an accounting major would be considered for a marketing opening but a marketing major wouldn't be considered for an accounting opening." Graduates of schools that provide students with a heavy concentration of accounting courses seemed to be in heavier demand than those with fewer hours in the subject.

The goal of most accounting majors is an opportunity to work for a "Big Eight" public accounting firm. These recruiters quickly skim the top 10 or 25 percent of the graduating account at leaving the remainder to be interviewed for accounting jobs in various industrial firms and

other employers. The lower the graduate's class standing the fewer the job offers until those near the lower end of the class may find themselves seeking work in nonaccounting positions. Salary offers from the "Big Eight" typically fell between \$12,500 and \$13,000 annually for those with B. S. degrees while non-public firms were offering accounting graduates somewhere between \$11,000 and \$12,000 annually.

# IV. BRIGHTER OUTLOOK FOR CENERAL BUSINESS GRADUATES

Graduates with majors in marketing, management, retailing, advertising, finance, and general business will find a slightly better job market than the class of 1975. The economic upturn has brought additional recruiters onto the campuses seeking candidates for management training programs. The business majors are most often sought by the large retail chains and insurance firms although those in liberal arts are also accepted. The general feeling was that banks were not recruiting in a major way this year except at the more prestigious schools such as the Harvard Business School and M. I. T.'s Sloan School of Management.

Most job offers in this area begin in the firm's management training program where the trainee spends varying amounts of time - from a few months to a year or more, to become familiar with various spects of the particular firm. Eventually the trainee is promoted into a specialized field such as purchasing, underwriting, personnel, public relations, industrial relations, as career paths for the graduate. Because of the wide range of career possibilities after training, appearance, attitude, personality and extracurricula activities are a major consideration to the recruiter.

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Since the growing number of graduates in business curricula is greater than the available jobs offered by campus recruiters some of these graduates, particularly those with poorer grades and no outside activities, must seek their own opportunities by replying to newspaper advertisements, mailing resumes, registering at both state and private employment offices, and a erting friends and relatives to their need for a job.

# V. FEW RECRUITERS SEEK GRADUATES IN THE HUMANITIES AND SOCIAL SCIENCES

The job market continues tight for graduates earning degrees in the humanities and social sciences with placement officers expecting no reversal of the trend in the forseeable future. Seniors majoring in English, journalism, art, history, sociology, philosophy, languages, music, psychology, economics, and political science are attracting few recruiters seeking their services. Acquisition of an advanced degree in these disciplines adds somewhat to a graduates' employability in some fields. Teaching at the college level, for which a Ph.D. is usually a necessity, offers little hope currently for those seeking teaching careers.

However, most career placement directors feel that the plight of these graduates often portrayed in the news media is overexaggerated.

When a bachelor degree holder, or even a masters degree holder, must wait on tables in a restaurant or drive a taxicab, the placement officials place some of the blame in the lap of the graduate. Perhaps due to a bleak mental picture of their employability, these graduates use the services of the placement office much less than their counterparts in other fields. They sometimes refuse interviews with profit making organizations and their unwillingness to relocate limits their job possibilities

and social sciences must actively take their credentials to the doors of employers if they are to find career opportunities justifying the cost and effort in acquiring a degree. In most cases they will have to seek jobs in areas that have no bearing on their major field of study and possibly where a degree might not even be a requirement for employment. For graduates in this quandary a job with advancement possibilities and where college training can be eventually utilized seems preferable to one where earnings may be initially higher.

The recent upturn in the economy seems to have opened more job slots for liberal arts majors than were available last year. Retail department store chains have increased their recruiting and will often accept liberal arts graduates for their internal training programs. Insurance companies will also hire graduates in the humanities for their various management training programs with math majors sometimes sought for positions as actuar: trainees. Recruiting by financial institutions is down this year so few liberal arts majors will find employment in this field. Tighter government budgets will also dampen efforts of these graduates to find employment in social welfare agencies. Although economics majors may not find a job as an economic researcher they have a good chance of performing related work or being accepted into management training programs with annua. salaries in the \$10-11,000 bracket. Salary offerings for other humanities and social science majors are not much higher than last year with a range of \$750 to \$850 monthly although some offerings are so low that a graduate can often earn more at a job where a degree is not necessary.

At one college a senior with a major in English waited several hours for a "no show" on one recruiters' schedule. There seemed to be little hope for a job since the interviewer was seeking only engineering graduates. When the chance finally came for an interview the English major was able to convince the recruiter that she was a competent writer and was eventually offered a position with this company in the field for which she had been trained. Perhaps this was a lucky break or an isolated incident but emphasizes the need for graduates to leave no stone unturned in their search for meaningful employment.

With the push from the career placement office some colleges are actively encouraging students majoring in the humanities to take a few electives in subjects which will make them more employable upon graduation. The typical areas of concentration outside their own major include accounting and computer science. A big hurdle is gaining the cooperation of the deans of the various liberal arts departments who sometimes cling to the concept of a liberal education only for the sake of learning with little room for vocation-related studies.

#### VI. MOST SCIENCE GRADUATES SEEK HIGHER DEGREES

The job outlook for graduates with a bachelors degree in the scientific disciplines is somewhat difficult to assess since a large number move on to graduate school. Graduates with majors in math and chemistry have the best opportunities among the large number of disciplines in this field.

Math majors who have completed courses in computer science have the least trouble followed closely by chemists where tighter government testing



regulations for many consumer products has created more openings than usual. Biology graduates find occasional recruiters seeking their specialties for various types of research projects while those with degrees in physics can use their training in some research type work. Geology majors must relocate to find employment in their field but oil firms seem more interested in engineering graduates at this time. The moon exploration efforts had created a large increase in the number of astronomy majors but in recent years non-existence of job openings has resulted in fewer freshmen entering this discipline.

The greater portion of the scientific graduates head for graduate school but an increasing number with masters' degrees find job hunting almost as difficult as when they first earned their undergraduate degree. Those who set their sights on college teaching may go on for a Ph.D. but once again supply vastly exceeds demand. A change in this situation in the forseeable future may be for even more degree holders at all levels than the job market can assimilate.

# VII. TEACHING OUTLOOK REMAINS DIM

Finding a teaching job will be a major accomplishment for any 1976 graduate. The declining birth rate has not only resulted in no hiring policies by major city school systems but in some cases have resulted in threatened layoffs of teachers already with jobs. Plans to close grammar schools is now everyday news in most large cities. Despite/this there are still smaller school systems outside the larger metropolitan areas where population shifts create occasional openings for new graduates.

Except for graduates with an inside track in choice school systems relocation away from large cities - the further away the better - remains the best key for opening the door to a career in teaching. This may require the mailing of dozens of resumes but for the person truly interested in teaching this may be the only way to enter the field. The experience gained in a small school system far from the big cities will also be a valuable asset in transferring to a more desired location in the future.

Although Australia and England had been recruiting teachers in past years this avenue appears to have closed in 1976. One placement director did note that Australia was still seeking a few teachers in certain specialized fields. The field of special education, once a bright spot for teaching graduates, has been oversaturated and openings are now rare.

Relatively the best opportunities for teachers are in scientific areas. such as mathematics, physics, chemistry, biology, etc. while the poorest areas are in history, English, languages, art, music, etc. Graduates with degrees in business education who planned to teach are able to seek employment outside teaching although it may not be the career they envisioned when they entered college.

Pracement directors once again stressed the need for education majors to gain experience through summer work with handicapped children or volunteer work in childrens' hospitals. Although the salary is low, a job as a teachers aide may be a steppingstone to a full-time teaching position. Substitute teaching may be another way to get one's foot in the door to a teaching career.

Whether a Masters Degree in Education is an asset of a liability in



finding employment remains debatable. School committees with tight budgets may favor bachelor degree candidates to reduce salary expenditures while systems emphasizing quality may be more inclined to hire graduates with advanced degrees.

Since 1970-71 when national elementary and secondary enrollment peaked at 51.3 million there has been a steady decline which is projected to continue until 1982-83. According to this report of the Department of Health, Education, and Welfare the enrollment in the nation's elementary and secondary schools will level off at 44.5 million in 1982-83. High school seniors thinking of entering college planning to major in education should be well aware of these statistics.

# VIII. HEALTH OPENINGS NOT AS FAVORABLE AS LAST YEAR

Despite a sign of a tightening labor market this years' class of graduating nurses should all find employment in the health field. There are indications, however, that the openings for nurses in the more desirable areas such as research and health clinics are hard to find or else some nursing experience is becoming a prerequisite. Openings are still plentiful as staff nurses at hospitals where the three shift schedule prevails. Even then, RN graduates may find they have to relocate to find a suitable opening or to accept a job which did not require a nursing graduate in prior years. Recruiting for nursing graduates is reported strong on the west coast and in the southeast.

Demand continues to absorb bachelor degree holders in related health fields. There are many openings for physical therapists although

the market is tighter for occupational therapists. Various types of medical technologists, nutritionists, dieticians, and pharmacists should also have little difficulty in this years' job market.

Although job opportunities may vary between regions of the country it is clear that the continued emphasis on health care will keep the demand for nurses and other health specialties high over the next decade.

#### IX. GOVERNMENT SPENDING AND COLLEGE GRADS

Recent trends by state and local governments to reduce their budgets has brought a general reduction in job opportunities for many disciplines.

Graduates with degrees in criminal justice, law enforcement, urban planning, conservation, library science and environmental protection are all adversely affected by reduced government spending. The sluggishness of construction activity, due to some extent by reduced Federal expenditures, has made it difficult for civil engineers and architectural graduates to find openings.

State governments are big employers which normally hire a wide range of college graduates from accountants to zoologists. A slowdown in hiring by any state or city government obviously reduces the number of entry level positions. Federal jobs are also tighter this year with the most opportunities in Washington, D. C.

Federal spending can also create abundant job opportunites. Inspection of wheat prior to export by the Department of Agriculture has created several hundred openings for agriculture commodity graders. Recruiting to fill at least some of these openings with various types of agriculture majors was underway in early Spring.

#### X. RECRUITING TO MEET AFFIRMATIVE ACTION GOALS

The economic upturn has increased the recruitment of women and minorities to meet affirmative action goals. Reduced hiring activity in general can no longer readily be used as a reason for failure to meet these goals, as was the case last year. As in the past most business firms seek graduates for their qualifications rather than as a method to meet quotas or to serve as "window dressing".

Because of the small number of female and minorities in the field of engineering there continues to be keen competition for such graduates. Although schools actively encourage freshmen to enter the field of engineering, it will take many years of high school guidance efforts to bring minorities, and females to anywhere near their proportional share of engineering enrollment. One engineering school offers black high school graduates a free summer course in subjects required for admission with little long-run success.

Recruiters continue to seek interviews only with blacks or females but placement directors generally refuse to allow this practice. One avenue around these restrictions is through contact with the female and minority student organizations which are only too glad to assist their membership in the effort to find jobs. Recruiting is up at womens' colleges as these once overlooked colleges, often considered training schools for teachers, have proved that their graduates are as good as others in their fields of training.



## XI. RELOCATION A NECESSITY FOR MANY GRADUATES

A placement problem that seemingly increases in dimension each succeeding year is the provincialism of New England graduates. Although this attitude appears to be more prevalent in the greater Boston area it is often mentioned by placement directors far removed from Boston.

In fact, many students graduating from schools in the outlying reaches of New England set their sights on finding employment in Boston either unaware or ignoring the large number of underemployed or unemployed graduates already there. Almost all placement directors stress the need for students to relocate in order to have a better chance of finding employment in the graduates' field of study. Willingness to relocate is frequently a necessity for some college graduates such as those with majors in education and non-technical liberal arts. Graduates desiring to live in New England or Boston may best fulfill this desire by accepting employment elsewhere for experience and transferring back to Boston when the opportunity arises.

When college freshmen and sophmores decide on their majors they should give some consideration to the location of positions in their chosen area of study. A student whose recreational interests lie in swimming and sailing would be unwise to major in goology where most job prospects might well be far from the ocean. Jobs in finance or investing are much more apt to be located in large financial districts so a student deciding on such a career should expect to live within commuting distance of a major city.

## XII. THE VALUE OF A COLLEGE EDUCATION

The most serious challenge confronting most career guidance and placement directors between now and the mid-1980's is that college graduates are increasing faster than available openings normally requiring a four-year degree. Although this is a nationwide problem it is perhaps worse in New England than elsewhere in the country. This problem will accentuate in years of economic downturn as was the case in 1975. Under these conditions a question often asked is why bother with a college degree.

During the many interviews with college placement officials an attempt was made to determine how the previous years' graduating class fared in the job market. Some placement offices make follow-up studies of their recent alumni with varying degrees of success depending on the time and effort devoted to the task. Wherever possible, these records, or the summaries prepared from them, were reviewed for a better comprehension of what happened to last years' graduates.

Some, such as Harvard University's Graduate School of Business Administration, publishes an annual Placement Report on the MBA Class of each year. From the summary of questionnaire responses for the 1975 class of 783 students, for example, approximately 83 percent of the total graduates found employment with a median salary of \$18,600. Many of these graduates have had previous work experience at the professional level prior to admission to the school. This salary was up \$1,000 over the average beginning salaries of the 1974 class. Further detail by industry, age, geographic area, size of employer, years of experience, and by American, Canadian, and Foreign nationals are also shown. It can thus be determined

that 63 students, or 12 percent of the 1975 class, found employment in consulting and research firms at a median starting salary of \$23,000 annually. Despite the apparent success of their classmates there were still approximately 10% of the class who did not bother to return the questionnaire and another 10 percent of those who returned the questionnaire who had not yet made a job decision.

The Massachusetts Institute of Technology undertakes annual follow-up studies of graduates. There was an 89 percent response for the follow-up covering all degree recipients of the 1974-1975 academic year. Of these, approximately one-third of the graduates at all degree levels continue on to further study. Of the bachelor degree recipients approximately two-thirds continue on to graduate school. Only 6.2 percent of those responding reported themselves as either "unsettled or unemployed."

Other colleges with less resources to follow-up nonrespondents have less success with surveys to determine the status of the previous years' graduating class. A 50 percent response rate is about average for most schools with somewhere near half of those responding indicating they are enrolled in graduate school. A check of these returned questionnaires indicate that many students do find employment related to their field of study. Education majors have teaching jobs and many liberal arts graduates are employed by major firms. Many graduates indicate on these questionnaires that they are not seeking work at this time or that they are "travelling", with Europe mentioned the most frequently. On the other hand, there are goodly numbers of graduates who report they are working at levels far below their educational level or are just simply "unemployed". One chemical



engineer was listed as unemployed because he was unsuccessful in his attempt to enter graduate school. There is always a scattering of responses from those who joined the Peace Corps or who are involved in other volunteer type activity.

It may be unfair to assume that the nonrespondents on these surveys have all fared badly in the world after graduation and have wasted thir time and money on a college education. Address changes make contacts difficult and many schools do not have the staff time to make second and third follow-up mailings. There may, however, be more incentive for an unemployed or an underemployed graduate to return the questionnaire merely to alert the placement office that he or she still seeks a better job.

In summary it appears that most college graduates do benefit in a material way from the acquisition of a college degree. These benefits are greater for some disciplines than others, but as most placement officers reiterate the graduate must have the motivation and desire to make use of the degree.

